What Is Claimed Is:

1. A method for modifying an electric machine drive rotor having a stator to create rotor position dependent saliency and allow sensorless control, the method comprising the step of:

providing a plurality of sensing slots around the rotor, wherein said plurality of sensing slots create a desired saliency.

2. The method of claim 1, wherein the step of providing a plurality of sensing slots around the rotor, wherein said plurality of sensing slots create a desired saliency comprises the step of providing a plurality of sensing slots uniformly spaced around the rotor, wherein said plurality of sensing slots create a desired saliency.

3. The method of claim 1, wherein the step of wherein the step of providing a plurality of sensing slots around the rotor, wherein said plurality of sensing slots create a desired saliency comprises the step of providing a plurality of sensing slots variably spaced in a repeating manner around the rotor, wherein said plurality of sensing slots create a desired saliency.

4. The method of claim 2, wherein the step of providing a plurality of sensing slots uniformly spaced around the rotor, wherein said plurality of sensing slots create a desired saliency comprises the step of providing a plurality of sensing slots uniformly spaced around the rotor, wherein each of said plurality of sensing slots has a

uniform width and depth around the rotor, and wherein said plurality of sensing slots create a desired saliency.

5. The method of claim 2, wherein the step of providing a plurality of sensing slots uniformly spaced around the rotor, wherein said plurality of sensing slots create a desired saliency comprises the step of providing a plurality of sensing slots uniformly spaced around the rotor, wherein each of said plurality of sensing slots has a uniform width around the rotor, wherein the depth of each of said plurality of sensing slots varies in a repeating manner around the rotor, and wherein said plurality of sensing slots create a desired saliency.

6. The method of claim 2, wherein the step of providing a plurality of sensing slots uniformly spaced around the rotor, wherein said plurality of sensing slots create a desired saliency comprises the step of providing a plurality of sensing slots uniformly spaced around the rotor, wherein each of said plurality of sensing slots has a uniform depth around the rotor, wherein the width of each of said plurality of sensing slots varies in a repeating manner around the rotor, and wherein said sensing slots create a desired saliency.

7. The method of claim 1, wherein the step of providing a plurality of sensing slots around the rotor, wherein said plurality of sensing slots create a desired saliency comprises the step of providing a plurality of sensing slots around the

rotor in a post-assembly step, wherein said plurality of sensing slots create a desired saliency.

8. The method of claim 1, wherein the step of providing a plurality of sensing slots around the rotor, wherein said plurality of sensing slots create a desired saliency comprises the step of providing a plurality of sensing slots around the rotor, wherein said plurality of sensing slots are coupled with a plurality of stator slots of a stator to create a desired saliency.

9. A sensorless control electric machine drive comprising:

a stator having a plurality of stator slots; and

a rotor having a plurality of rotor sensing slots located along its outer periphery, wherein said plurality of stator slots and said plurality of rotor sensing slots are coupled to create a desired saliency.

10. The sensorless control electric machine drive of claim 9, wherein said plurality of rotor sensing slots are spaced uniformly around the outer periphery of said rotor.

11. The sensorless control electric machine drive of claim 9, wherein said plurality of rotor sensing slots are variably spaced in a repeating pattern around the outer periphery of said rotor.

12. The sensorless control electric machine drive of claim 11, wherein said repeating pattern comprises a sinusoidal repeating pattern.

13. The sensorless control electric machine drive of claim 10, wherein the depth of said plurality of rotor sensing slots is varied in a repeating pattern around said rotor.

14. The sensorless control electric machine drive of claim 10, wherein the width of said plurality of rotor sensing slots is varied in a repeating pattern around said rotor.

15. The sensorless control electric machine drive of claim 10, wherein the sensorless control electric machine drive is selected from the group consisting of a sensorless control induction machine, a Lundell-type synchronous machine, a buried permanent magnet synchronous machine, and a surface permanent magnet synchronous machine.

16. A sensorless control electric machine drive comprising:

a stator having a plurality of stator slots; and

a rotor having a plurality of rotor sensing slots located along its outer periphery, wherein said plurality of rotor sensing slots create a desired saliency.

17. The sensorless control electric machine drive of claim 16, wherein said plurality of rotor sensing slots are spaced uniformly around the outer periphery of said rotor.

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18. The sensorless control electric machine drive of claim 16, wherein said plurality of rotor sensing slots are variably spaced in a repeating pattern around the outer periphery of said rotor.

19. The sensorless control electric machine drive of claim 18, wherein said repeating pattern comprises a sinusoidal repeating pattern.

20. The sensorless control electric machine drive of claim 17, wherein the depth of said plurality of rotor sensing slots is varied in a repeating pattern around said rotor.

21. The sensorless control electric machine drive of claim 17, wherein the width of said plurality of rotor sensing slots is varied in a repeating pattern around said rotor.

22. The sensorless control electric machine drive of claim 17, wherein the depth of said plurality of rotor sensing slots is varied in a sinusoidal repeating pattern around said rotor.

23. The sensorless control electric machine drive of claim 17, wherein the width of said plurality of rotor sensing slots is varied in a sinusoidal repeating pattern around said rotor.

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24. The sensorless control electric machine drive of claim 16, wherein the sensorless control electric machine drive is selected from the group consisting of a sensorless control induction

machine, a Lundell-type synchronous machine, a buried permanent magnet synchronous machine, and a surface permanent magnet synchronous machine.